

What is claim d is:

1. A radio access network system having a synchronous server and at least one node, wherein

the synchronous server comprises:

5 a clock generator configured to periodically generate a clock; and

a synchronous message transmitter configured to generate a synchronous message for notifying information regarding the generated clock, and to transmit the generated synchronous message to the node using an IP packet; and

the node comprises:

a time calculator configured to obtain a time of receiving the synchronous message; and

15 a clock correction processor configured to calculate a clock correction value in accordance with the time of receiving the synchronous message and the information regarding the clock notified by the synchronous message, and to correct a generated timing of a clock in the node in accordance with the clock correction value.

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2. A radio communication method in a radio access network system having a synchronous server and at least one node, the method comprising the steps of:

25 generating a clock periodically in the synchronous server;

generating a synchronous message for notifying information regarding the generated clock in the synchronous server;

transmitting the generated synchronous message to the

node using an IP packet in the synchronous server;

calculating a clock correction value in accordance with  
a time of receiving the synchronous message and the information  
regarding the clock notified by the synchronous message in the  
5 node; and

correcting a generated timing of a clock in accordance  
with the clock correction value in the node.

3. A synchronous server in a radio access network system  
10 having at least one node, the server comprising:

a clock generator configured to periodically generate a  
clock; and

a synchronous message transmitter configured to generate  
a synchronous message for notifying information regarding the  
15 generated clock, and to transmit the generated synchronous  
message to the node using an IP packet.

4. The synchronous server according to claim 3, wherein the  
synchronous message transmitter sets a time of transmitting the  
20 synchronous message as the information regarding the clock in  
the synchronous message.

5. A node in a radio access network system having a  
synchronous server, the node comprising:

25 a receiver configured to receive a synchronous message  
for notifying information regarding a clock generated in the  
synchronous server;

a time calculator configured to obtain a time of receiving  
the synchronous message; and

a clock correction processor configured to calculate a clock correction value in accordance with the time of receiving the synchronous message and the information regarding the clock notified by the synchronous message, and to correct a generated  
5 timing of a clock in the node in accordance with the clock correction value.

6. The node according to claim 5, wherein the time calculator measures a reception interval of the synchronous message, and  
10 calculates the clock correction value without using the synchronous message when the reception interval of the synchronous message is more than a predetermined threshold.

7. The node according to claim 5, the node further comprising  
15 a memory configured to associate a time of transmitting set in the synchronous message with the time of receiving the synchronous message in the node, upon receiving the synchronous message.

20 8. The node according to claim 7, wherein the time calculator obtains the time of transmitting the synchronous message and the time of receiving the synchronous message from the memory, calculates a transmission interval of the synchronous message and a reception interval of the synchronous message, and  
25 calculates the clock correction value in accordance with a comparison between the transmission interval and the reception interval.